

Listing of Claims:

1. (Currently Amended) A method for performing ~~synchro~~synchronization of a mobile network device (2) to a network control device (1) of a present radio network region (CST), comprising the steps of:

detecting (S1) a source radio network region (CS1 to CS8) from which a handover of said mobile network device (2) to said present radio network region (CST) has been performed[[,]]; and

determining (S2, S3) a start propagation delay value (SPV1 to SPV8; SPV1_1 to SPV1_5) based on said detected source radio network region (CS1 to CS8) of said mobile station (2)[[,]]; and

searching (S4) an actual propagation delay value by using a search strategy based on said determined start propagation delay value (SPV1 to SPV8; SPV1_1 to SPV1_5).

2. (Currently Amended) The method ~~according to~~ of claim 1, wherein start propagation delay values are stored in a database for a plurality of adjacent sectors (CS1 to CS8) ~~start propagation delay values (SPV1 to SPV8; SPV1_1 to SPV1_5) are stored in a database (14; 14')~~.

3. (Currently Amended) The method ~~according to~~ of claim 2, further comprising the step of:

updating (S6) said database (14; 14') with said searched actual propagation delay value after performing said search step.

4. (Currently Amended) The method ~~according to~~ of claim 3, wherein one start propagation value is stored for each adjacent sector (~~CS1 to CS8~~) ~~one start propagation value (SPV1 to SPV8) is stored.~~

5. (Currently Amended) The method ~~according to~~ of claim 3, wherein for each adjacent sector (~~CS1 to CS8~~) a plurality of start propagation values (~~SPV1_1 to SPV1_5~~) are used and an average of said plurality of start propagation values (~~SPV1_1 to SPV1_5~~) is used as the a basis for said search strategy.

6. (Currently Amended) The method ~~according to~~ of claim 5, wherein a distribution of said plurality of start propagation values (~~SPV1_1 to SPV1_5~~) is also used as the basis for said search strategy.

7. (Currently Amended) The method ~~according to~~ of claim 1, wherein said search strategy is expanding window.

8. (Currently Amended) The method ~~according to~~ of claim 1, wherein said search strategy is z-search.

9. (Currently Amended) A network control device of a present radio network region (~~CST~~), comprising:

a detecting means ~~(11)~~ for detecting a source radio network region ~~(CS1-CS8)~~ from which a handover of a mobile network device ~~(2)~~ to the present radio network region ~~(CS1)~~ has been performed[[,]];

a determining means ~~(12, 14)~~ for determining a start propagation delay value ~~(SPV1 to SPV8; SPV1_1 to SPV1_5)~~ based on said detected source radio network region ~~(CS1 to CS8)~~ of said mobile station ~~(2)~~[[,]]; and

a search means ~~(13)~~ for searching an actual propagation delay value by using a search strategy based on the determined start propagation delay value ~~(SPV1 to SPV8; SPV1_1 to SPV1_5)~~.

10. (Currently Amended) The device ~~according to~~ of claim 9, further comprising:

a database ~~(14; 14')~~ in which ~~for a plurality of adjacent sectors (CS1 to CS8)~~ start propagation delay values ~~(SPV1 to SPV8; SPV1_1 to SPV1_5)~~ are stored for a plurality of adjacent sectors[[,]];

wherein said determining means ~~(12)~~ accesses said database ~~(14)~~.

11. (Currently Amended) The device ~~according to~~ of claim 10, further comprising:

an updating means ~~(17)~~ for updating said database with the current propagation delay value detected by said search means ~~(13)~~.

12. (Currently Amended) The device ~~according to~~ of claim 11, wherein one start propagation value is stored in said database for each adjacent sector (CS1 to CS8) ~~one start propagation value (SPV1 to SPV8) is stored in said database (14)~~.

13. (Currently Amended) The device ~~according to~~ of claim 11, wherein for each adjacent sector (~~CS1 to CS8~~) a plurality of start propagation values (~~SPV1_1 to SPV1_5~~) are stored in said database (14') and said updating means (17) is adapted to use an average of said plurality of start propagation values (~~SPV1_1 to SPV1_5~~) as ~~the~~ a basis for said search strategy.

14. (Currently Amended) The device ~~according to~~ of claim 13, wherein a distribution of said plurality of start propagation values (~~SPV1_1 to SPV1_5~~) is also used as the basis for said search strategy.

15. (Currently Amended) The device ~~according to~~ of claim 9, wherein said search strategy is expanding window.

16. (Currently Amended) The device ~~according to~~ of claim 9, wherein said search strategy is z-search.